

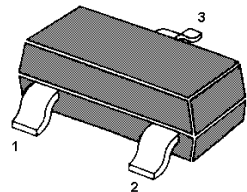
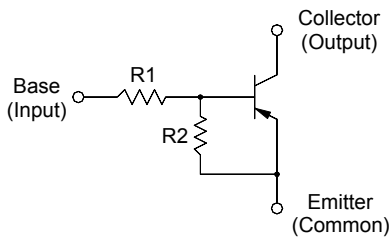
MMBTRA117SS-AH

PNP Silicon Epitaxial Planar Transistor

for switching, interface circuit and drive circuit applications

Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- AEC-Q101 Qualified and PPAP Capable
- Halogen and Antimony Free(HAF), RoHS compliant



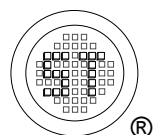
1.Base 2.Emitter 3. Collector
TO-236 Plastic Package

Resistor Values

R1 (KΩ)	R2 (KΩ)
2.2	2.2

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Output Voltage	-V _O	50	V
Input Voltage	V _I	- 12, 10	V
Output Current	-I _O	100	mA
Total Power Dissipation	P _{tot}	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{Stg}	- 55 to + 150	°C



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Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_O = 5\text{ V}$, $-I_O = 20\text{ mA}$	G_I	20	-	-	-
Output Cutoff Current at $-V_O = 50\text{ V}$	$-I_{O(OFF)}$	-	-	500	nA
Input Current at $-V_I = 5\text{ V}$	$-I_I$	-	-	3.8	mA
Output Voltage at $-I_O = 10\text{ mA}$, $-I_I = 0.5\text{ mA}$	$-V_{O(ON)}$	-	-	0.3	V
Input Voltage (ON) at $-V_O = 0.3\text{ V}$, $-I_O = 20\text{ mA}$	$-V_{I(ON)}$	-	-	3	V
Input Voltage (OFF) at $-V_{CC} = 5\text{ V}$, $-I_O = 100\text{ }\mu\text{A}$	$-V_{I(OFF)}$	0.5	-	-	V
Transition Frequency at $-V_O = 10\text{ V}$, $-I_O = 5\text{ mA}$	$f_T^{1)}$	-	250	-	MHz

¹⁾ Characteristic of transistor only.

